Agroforestry Notes

USDA Forest Service • USDA Natural Resources Conservation Service

AF Note — 15

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Economics and Marketing of Ginseng

Introduction

It is extremely important to learn about the economic potential of the various types of ginseng and how to market the product prior to growing it. Raising ginseng is something that a patient person who enjoys growing things can find interesting and potentially profitable but, it requires hard work, at least a small capital investment, and it certainly is not a sure thing. This *Agroforestry Note* will familiarize readers with some economic considerations and marketing tips. For specific information about growing ginseng refer to AF Note Forest Farming -3, *American Ginseng Production in Woodlots.*

Types of Ginseng

American ginseng, (Panax quinquefolium) - is a native American herb with a range that extends from Southern Quebec to Northern Georgia and from the East Coast to the Midwest. It grows as an understory plant in the dense shade provided by deciduous hardwood tree species.

Field cultivated ginseng - is grown in raised beds in fields under artificial shade provided by either wood lathe or polypropylene shade cloth for a period of three to four years.

Woods cultivated ginseng - is grown in a forested environment in tilled beds under natural shade for a period of six to nine years.

Wild simulated ginseng - is grown in untilled soil in forests for a period of nine to twelve years or even longer. The dried roots of wild simulated ginseng closely approximate the appearance of truly wild ginseng.

Wild ginseng – is an internationally protected species. Its collection is either prohibited or strictly regulated in states where it occurs.

Costs and Returns

Although ginseng root can sell for high prices, ginseng growing in a forested environment is certainly not a "get rich quick" scheme as it takes a minimum of five to eight years of growth before harvesting can occur. Prospective growers are encouraged to start with a very small investment, perhaps a few ounces of seed plus a hundred rootlets. Expand only if preliminary results are positive. Survival of seedlings and plants up to three years old is a good test of a prospective growing site. The lowest costs of production are associated with the "wild simulated" approach. Projected budgets for a one half acre plot of "wild simulated" ginseng and a one half acre plot of "woods cultivated" ginseng are included in Tables 1 and 2.

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Table 1: Projected Nine-Year Budget for One-Half Acre of Wild-Simulated ginseng

Seed*	10 pounds at $75/lb.		$750.00
Labor	Site preparation and planting		
	125 hours X $10/hr.	$1,250.00	
	Bi-weekly inspection and trouble shooting 200 hours X $10.00	$5,000.00	
			$6,250.00
Materials and Equipment			
	Rakes and shovels or spading forks (assume some tools already on hand)	$50.00	
	Backpack sprayer ($125), fungicides, and rodenticides for troubleshooting	$200.00	
			$250.00
Drying	Addition of insulation and drying racks to existing room or shed	$400.00	
	Energy cost to heat (.50/lb. of dried root)	$40.00	
			$440.00
Total Cost			$7,690.00
Expected Yield: 80 lbs. of dried roots			
Gross Profit: 80 lbs. X $300.00/lb.			$24,000.00
Net Profit at end of Nine Years			$16,310.00

* The per pound price of seed varies with quality and quantity, and from year to year with supply and demand. The best seed comes from disease-free gardens of fifth-year and older plants. There are roughly 7,000 seeds in a pound. Eventually, a successful grower will produce his own seed. *(From "American Ginseng: Green Gold," by W. Scott Persons used courtsey of the publisher, Bright Mountain Books, Inc.).* Based on an analysis done in 1994.

Table 2: Projected Six-Year Budget for One-Half Acre of Woods-Cultivated Ginseng

Seed	24 pounds at $75/lb.		$1,800.00
Labor	Site preparation and planting		
	300 hours X $10/hr.	$3,000.00	
	Care and maintenance:		
	1,000 hours X $10/hr.	$10,000.00	
	Harvesting seeds and roots:		
	650 hours X $10/hr.	$6,500.00	
			$19,500.00
Materials and Equipment			
	Chemicals: Primarily fungicides but also herbicides, insecticides, rodenticides fertilizer, gas, and oil	$1,000.00	
	Rear-tined tiller for bed preparation	$1,000.00	
	Backpack sprayers: 2 X $125	$250.00	
	Garden seeder	$75.00	
			$2,325.00
Drying	Addition of insulation and drying racks to existing room or shed	$400.00	
	Energy cost to heat (.50/lb. of dried root)	$150.00	
			$550.00
Total Cost			$24,175.00
Expected Yield: 300 lbs. of dried roots			
Gross Profit: 300 lbs. X $100.00/lb.			$30,000.00
Net Profit at end of Nine Years			$5,825.00

From "The Challenge of the Century" proceedings. Based on an analysis conducted in 1999. Slightly modified by R. Beyfuss.

Markets

In recent years the world market price for field cultivated ginseng has dropped to near the actual cost of production. The prices of woods cultivated and wild simulated ginseng, on the other hand, have risen to levels that can be extremely profitable for landowners with suitable forest stands.

The prices received by growers of field cultivated ginseng have been declining in recent years due to oversupply and are now in the range of approximately $12 to $20 per pound for dried root. Properly dried ginseng roots weigh about one third of their original fresh weight. The prices received by wild ginseng harvesters or growers of woodland ginseng have always been significantly higher and in some situations may approach $300 per pound or more. In general, the age and appearance of the root when harvested and the system of cultivation determine the price received by the grower (see Figures 1 and 2). American ginseng is sorted into at least 40 different grades, based on root shape, color, taste, and age. Most growers know very little about the various grades of ginseng and simply sell all of their roots in bulk. All of the references listed at the end of this *Note* include sources of seed, rootlets for transplanting, ginseng buyers, and consultants.

Future Markets

Unlike many "alternative" agricultural commodities the market for ginseng is well established and easily accessed. Traditionally, fur traders, timber harvesters and other individuals who deal with forest products have purchased woods cultivated or wild ginseng for resale to dealers who export the overwhelming majority of the crop. Most states that have a protection plan for wild ginseng also have lists of licensed ginseng dealers. For details about your state program or a list of dealers contact your local Conservation District.

American Ginseng is gaining popularity among American and European consumers. Eventually a market for "organic" ginseng can be expected to develop, as western people become more familiar with this product. Woodland cultivation is the only possible way to grow ginseng "organically." Currently, the production of woodland ginseng is so limited that almost all of it is exported to Asian countries. It will most likely continue to be in great demand since the Chinese market alone is enormous. American woodland ginseng is so expensive in China that only the wealthy can afford to buy it. As Asian economies recover from their current recession, demand will increase.

Growers associations have formed in several states including New York, Maine, Illinois, and Wisconsin to address the marketing issues. Commercial woodland ginseng production is still in its infancy as an industry in the U.S. It is unlikely that sup-

Figure 1: Average price per dry pound of ginseng based on the age of the root.

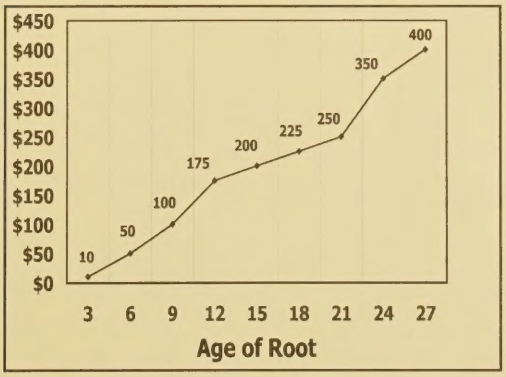
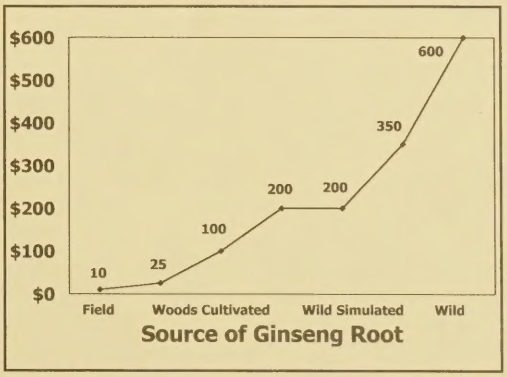


Figure 2: Average price per dry pound based on the method of cultivation.



ply will exceed demand anytime in the next twenty to thirty years. Ginseng cultivation will always be most profitable in naturally forested areas that have suitable environmental and ecological conditions.

For More Information

"American Ginseng Production in New York State." Beyfuss, R.L. Cornell Cooperative Extension of Greene County, HCR 3, Box 906, Cairo NY 12413

"The Practical Guide to Growing Ginseng." Beyfuss, R.L. RR 1, Box 126 N, Freehold NY 12431

"American Ginseng, Green Gold." Persons, W.S. Tuckasegee Valley Ginseng, Box 236, Tuckasegee, NC 28783

"The Challenges of the 21st Century, Proceedings of the International Conference-Vancouver 1994." Bailey, W.G., Whitehead, C., Proctor, J.T,A., and Kyle, J.T. Simon Fraser University, Burnaby, British Columbia, Canada

Author
Robert L. Beyfuss, Cornell Cooperative Extension of Greene County, HCR 3, Box 906, Cairo NY 12413.

For more information contact the USDA National Agroforestry Center (NAC), East Campus-UNL, Lincoln, Nebraska 68583-0822. Phone: 402-437-5178; fax: 402-437-5712.

The National Agroforestry Center is a partnership of the USDA Forest Service, Research & Development (Rocky Mountain Research Station) and State & Private Forestry and the USDA Natural Resources Conservation Service. The Center's purpose is to accelerate the development and application of agroforestry technologies to attain more economically, environmentally, and socially sustainable land-use systems. To accomplish its mission, the Center interacts with a national network of cooperators to conduct research, develop technologies and tools, establish demonstrations, and provide useful information to natural resource professionals.